## **ABSTRACT**

A method for fabricating multi layer microelectromechanical and microfluidic devices is disclosed. Multi layer microelectromechanical and microfluidic devices are fabricated on a substrate with layers of predetermined weak and strong bond regions where deconstructed layers of devices at or on the weak bond regions. The layers are then peeled and subsequently bonded to produce a multi layer microelectromechanical and microfluidic devices. An arbitrary number of layers can be bonded and stacked to create either microelectromechanical or microfluidic device or a hyrbid type of device. Also disclosed are methods of creating edge interconnects and vias through the substrate to form interconnections between layers and devices thereon.